

REMARKS/ARGUMENTS

Applicants respectfully request reconsideration and allowance of this application in view of the following comments.

Claim 13 was rejected under 35 USC § 112, first paragraph, as introducing new matter. In response, Applicants respectfully submit that claim 13 does not introduce new matter.

As previously pointed out, the preferred embodiment at page 12, lines 8 ff, involves a backing assembly produced from two outer layers and an interlayer by laminating together two backing materials, coated on one side with adhesive, with an offset. This teaching suggests a non-preferred embodiment wherein the assembly is made without the offset.

Indeed, instant Example 1 describes the construction of the tape being made by laminating together two identical tapes. The description is silent about the tapes being laminated together with an offset, consequently, persons skilled in the art would understand that the tape is produced without layers A and B being offset.

Finally, since the layers A and B being offset is positively recited, Applicants may exclude this embodiment, as a matter of law, without introducing new matter. See, MPEP § 2173.05(i) (“If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims.”)

The Examiner does not respond specifically to these arguments in the final rejection. Applicants renew their positions and respectfully request that the Examiner respond to each in detail if this rejection is maintained.

Applicants believe that claim 13 does not introduce new matter, and respectfully request that the Examiner reconsider and withdraw this rejection. An early notice that this rejection has been reconsidered and withdrawn is earnestly solicited.

Claims 1-3, 5 and 7-12 were rejected under 35 USC § 103(a) as being obvious over Samson-Himmelstjerna et al. ("Samson-Himmelstjerna"), US 2003/0198806.

Claims 6 and 13 were rejected under 35 USC § 103(a) as being obvious over Samson-Himmelstjerna in view of Lodde, US 2002/0053392.

Claims 1-3, 5, 7-12, 14 and 15 were rejected under 35 USC § 103(a) as being obvious over Samson-Himmelstjerna in view of Zafiroglu, US 7,622,408.

Claims 6 and 13 were rejected under 35 USC § 103(a) as being obvious over Samson-Himmelstjerna in view of Zafiroglu, further in view of Lodde.

Claim 4 was rejected under 35 USC § 103(a) as being obvious over Samson-Himmelstjerna in view of Tanaka et al. ("Tanaka"), US 2003/0118769.

Claim 4 was rejected under 35 USC § 103(a) as being obvious over Samson-Himmelstjerna in view of Zafiroglu, further in view of Tanaka.

Applicants respond to *all* of the prior art rejections together.

The Examiner previously declined to give weight to the data in the instant specification, in spite of Applicants' citation of *In re Soni*, 34 USPQ2d 1684, 1687 (Fed. Cir. 1995), and the mandate therein that the Examiner must consider data in the specification in determining whether

the claimed invention provides unexpected results. In order to advance the prosecution, Applicants now provide the Declaration of inventor, Dr. Klaus Külper, incorporating the data in the specification, and proving that the present invention is characterized by unexpected results and, therefore, is, in fact, nonobvious. Applicants respectfully request that the Examiner now consider the declaration and find that the claims are nonobvious over the various combinations of references.

Dr. Külper confirms in numbered paragraph 8 on page 3 of the declaration that the data bear out “the *criticality* in this embodiment of the interlayer C having a basis weight of 40 to 600 g/m² (emphasis added).”

Dr. Külper explains in numbered paragraphs 9-18 how the data supplied supports his conclusion. The Examiner’s attention is directed to the summaries in Table 2 on page 5 and Table 3 on page 7 of the declaration. The data show that very high abrasion and scuff resistances are achievable *only if* the basis weight of interlayer C is manipulated within the presently claimed ranges. Compare A and B to C and D in Table 2; and 3 to 5-9 in Table 3. See also the Counterexample on page 19 of the instant specification, all of which, again, is incorporated by reference in numbered paragraph 8 of Dr. Külper’s declaration.

Dr. Külper confirms in numbered paragraphs 19-22 of his declaration that “the finding that the basis weight of the interlayer C affects the abrasion resistance of the outer layers is completely surprising and unexpected” and “there is nothing in Samson-Himmelstjerna establishing the basis weight of interlayer C as a result-effective variable affecting abrasion and scuff resistance.” Indeed, Dr. Külper points out in numbered paragraph 22 that he was personally

close to Dr. Samson-Himmelstjerna at the time the invention therein was developed, and knowledgeable about the development of Dr. Samson-Himmelstjerna's invention, and knows that increased weight of the interlayer C was actually counterindicated, as "increased weight of the interlayer C would have obviously caused higher production costs and was therefore not taken in consideration and no part of the investigation."

Applicants respectfully submit that, given the Külper Declaration, it should be clear to the Examiner that a person having ordinary skill in the art would not, as a matter of law, have found it obvious to optimize this parameter. *See, e.g., In re Antoine*, 195 USPQ 6 (CCPA 1977), for the proposition that there is no motivation to optimize a variable where the prior art does not reveal the optimized variable to be result-effective.

Further, Applicants respectfully submit that these data support the breath of the claims. Dr. Külper confirms in numbered paragraph 20 that "these data [already over a wide range] at from 60-320 g/m² reasonably support the surprising and unexpected improvement over the entire claimed range of the interlayer C having a basis weight of 40 to 600 g/m²."

Further on this point, Applicants refer the Examiner to MPEP § 716.02(c)(I), entitled "Nonobvious of a Genus or Claimed Range May be Supported by Data Showing Unexpected Results of a Species or Narrower Range under Certain Circumstances." Those circumstances are "if one of ordinary skill in the art would be able to determine a trend in the exemplified data which would allow the artisan to reasonably extend the probative value thereof." Applicants respectfully submit that such circumstances exist on the present record.

First, the test results reported in Table 2 on page 14 were compiled from comparison of

assemblies that differed only in the adhesives employed. In each case, the outer layers were identical. Consequently, a person having ordinary skill in the art would be reasonable to conclude that differences in the outer layer woven or formed-loop knit composition would not be expected to significantly impact the results. In other words, irrespective of the woven or formed-loop knit, a person having ordinary skill in the art would have been reasonable to expect, given the data in the instant specification, that manipulating interlayer C in the manner required by the instant claims should give an improvement in abrasion resistance.

Second, the data in Table 2 show that a small amount of a laminating adhesive is no better than no adhesive at all, as Test A without adhesive was resistant for 5130 cycles, whereas Test B with laminating adhesive was resistant only for a few more cycles at 5310 cycles.

Third, Tests C and D prove that increasing the weight of the adhesive, in this case, even different adhesives (acrylate hotmelt in Test C and natural rubber in Test D) *synergistically* improves the abrasion resistance, as the increase in abrasion resistance in terms of increases in the number of cycles is more than 100% of Test A.

Fourth, the specification explains on page 8, lines 4 ff, that the improvement is brought about at least in part by the high weights of adhesive used being able to dissipate negative energies being brought to bear on the outer layers that might lead to rubbing, scuffing and wearing. A person having ordinary skill in the art, given the data, and considering the explanation, would be reasonable to expect similar results with other adhesives and amounts. In other words, such person would have no good reason to believe that the results demonstrated are limited to the particular adhesives shown, especially in view of the technical explanation how the

improvement is brought about.

Indeed, the specification teaches at page 10, lines 18-19, that “[f]or an inventive improvement in abrasion resistance, suitable basis masses for the interlayer C are from 40 to 600 g/m², in particular 50 to 300 g/m².” This teaching, coupled with the data in Table 2 provides reasonable assurance for the full scope of main claim 1 as confirmed by Dr. Külper’s declaration.

Applicants respectfully submit that it is truly surprising and unexpected that the two layers of woven or formed-looped knit give an abrasion resistance that is remarkably better than the predicted abrasion resistance, the sum of the abrasion resistance of layer A and B, as shown in Table 2. A person having ordinary skill in the art would have assumed that the layer C, especially if the layer C is an adhesive, would not remarkably influence the abrasion resistance of the tape since it is situated between the outer layers. Thus, such a person would have assumed that the three-layered tape as shown in Samson-Himmelstjerna would show an abrasion resistance which is the sum of the abrasion resistance of outer layer A and outer layer B. Such a person could hardly have expected manipulating the construct as instantly claimed on interior layer C would yield a synergistic effect.

Further, there is nothing in Samson-Himmelstjerna that teaches or suggests that manipulating the basis weight of interlayer C within the presently claimed range should have the dramatic improvement shown on abrasion and scuff resistance. Accordingly, the data in the instant specification as supported by the Külper Declaration must be regarded as surprising and unexpected and, therefore, as objective evidence of nonobviousness.

In view of the foregoing, Applicants respectfully submit that none of the various

combinations of references necessitates the rejection of any of the rejected claims. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw all of the rejections. An early notice that these rejections have all be reconsidered and withdrawn is also earnestly solicited.

Applicants believe that the foregoing constitutes a bona fide response to all outstanding objections and rejections.

Applicants also believe that this application is in condition for immediate allowance. However, should any issue(s) of a minor nature remain, the Examiner is respectfully requested to telephone the undersigned at telephone number (212) 808-0700 so that the issue(s) might be promptly resolved.

Early and favorable action is earnestly solicited.

Respectfully submitted,
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